

the non-oxide ceramic material attached to the exposed surface by a high intensity plasma conditioning treatment;

(b) processing the at least one substrate by supplying process gas to the processing chamber; and

(c) removing the at least one substrate from the processing chamber.

15. (Amended) A method of plasma conditioning a machined and/or sintered surface of a ceramic part of a semiconductor processing chamber, the part being made of a ceramic material, the method comprising treating the surface to reduce particles of the ceramic material attached to the surface by contacting the surface with a high intensity plasma.

16. (Amended) The method according to Claim 15, wherein the ceramic part is conditioned in a processing chamber which includes a substantially planar antenna which energizes process gas into a plasma state by supplying RF power to the antenna and the process gas comprising at least one fluorocarbon gas, the plasma conditioning being carried out by energizing the fluorocarbon gas into a plasma state and contacting the machined and/or sintered surface with the plasma.

17. (Amended) The method according to Claim 16, the ceramic part is conditioned in a processing chamber which wherein a process gas is energized into a plasma state, the process gas comprising at least one fluorocarbon gas, the plasma

conditioning being carried out by energizing the fluorocarbon gas into a plasma state and contacting the machined and/or sintered surface with the plasma.

18. (Amended) The method according to Claim 15, wherein the ceramic part comprises a gas distribution plate mounted in a processing chamber which includes a substantially planar coil which energizes process gas into a plasma state by supplying RF power to the antenna, the plasma conditioning being carried out by contacting the machined and/or sintered surface with a high density plasma while adjusting pressure in the processing chamber to 200 to 500 mTorr, supplying the coil with 2000 to 2500 W of radio frequency power, and/or changing coil termination capacitance of the coil so as to move an area of higher intensity plasma across the gas distribution plate.

24. (Amended) The method according to Claim 15, wherein the method further includes installing the ceramic part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma while powering the ceramic part to increase ion bombardment thereof.

25. (Amended) The method according to Claim 15, wherein the method further includes installing the ceramic part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma generated by energizing a halogen gas into a plasma state.

26. (Amended) The method according to Claim 15, wherein the method further includes installing the ceramic part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma generated by energizing an inert gas into a plasma state.

27. (Amended) The method according to Claim 15, wherein the method further includes installing the ceramic part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma generated by energizing oxygen gas into a plasma state.

28. (Amended) The method according to Claim 15, wherein the ceramic part is a silicon carbide part and the method further includes installing the silicon carbide part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma generated by energizing a fluorine containing gas into a plasma state.

29. (Amended) The method according to Claim 15, wherein the method further includes installing the ceramic part in a plasma reactor, the plasma conditioning comprising treating the machined and/or sintered surface with a high density plasma while seasoning the reactor.

31. (New) The method according to Claim 1, wherein the surface of the part has been machined prior to being treated by the high intensity plasma conditioning treatment.

32. (New) The method according to Claim 1, wherein the surface of the part has been sintered prior to being treated by the high intensity plasma conditioning treatment.

33. (New) The method according to Claim 15, wherein the surface of the ceramic part has been machined prior to treating the surface with a high intensity plasma.

34. (New) The method according to Claim 15, wherein the surface of the ceramic part has been sintered prior to treating the surface with a high intensity plasma.

REMARKS

Claims 1-34 are pending. This Amendment amends Claims 1, 15-18 and 24-29 and adds new Claims 31-34. Reconsideration of the March 5, 2002 Official Action is respectfully requested.

Applicants thank Examiner Umez-Eronini for the courtesies extended to Applicant's undersigned representative during the personal interview on April 5, 2002. The substance of the interview is incorporated in the following remarks.

Claims 1, 3, 6-11, 13-15, 17 and 19-30 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,904,778 ("Lu"). The reasons for the rejection are set forth in